

Safety Data Sheet

1. Product and Company Identification

Product(s):	MEASURE UA R-1
Manufacturer's name:	UMA Co.,Ltd.
Address:	2-19-6, Yokosuka, Matsudo. Chiba, 270-0031, Japan
	Tel: +81-47-710-4871
	Fax: +81-47-710-4872

2. Hazards Identification

Emergency Overview

This product has been classified as non-hazardous based on the physical and/or chemical nature and/or concentration of ingredients.

Product has little to no hazards for Emergency Responders if spilled and has no unusual hazard if in a fire.

OSHA Hazards: Not Hazardous

While this material is not considered hazardous by the OSHA Hazard Communication Standard [29 CFR 1910.1200], the SDS contained valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

GHS Classification Signal words, Symbol, Hazard & Precautionary Statements

Not Hazardous

Potential Health Effects

Skin Contact	May be harmful if exposed to skin. May cause skin irritation, itching, redness or inflammation.
Eye Contact	May be harmful if exposed to eyes. May cause eye irritation, watering eyes, stinging or burning sensation.
Inhalation	May be harmful if inhaled. May cause respiratory tract irritation, headache, dizziness, nausea or coughing.
Ingestion	May be harmful if swallowed. May cause irritation of gastrointestinal tract, nausea, or vomiting.

See Section 11: Toxicological Information for additional information.

Environmental effects None identified.
See Section 12: Ecological Information for additional
information.

3. Composition/Information on Ingredients

N-(2-Hydroxy-3-sulfopropyl)-3,5-dimethoxyaniline, sodium salt (HDAOS)
(CAS : 82692-88-4)

Ascorbate Oxidase(AOD)(CAS : 9029-44-1)

4. First Aid Measures

General Advice	Avoid further exposure to product. Consult a physician.
In case of skin contact	Wash exposed area with soap and plenty of water. Remove any contamination clothing. Seek medical attention.
In case of eye contact	Wash eyes with plenty of water for at least 15 minutes. Have victim remove contact lenses. Be sure to wash under eyelids. Seek medical attention.
If inhaled	Remove victim to well-ventilated area. If victim is not breathing give artificial respiration. Seek medical attention.
If swallowed	If victim is conscious, rinse mouth with water. Do not give anything to an unconscious victim. Seek medical attention.

5. Fire Fighting Measures

Suitable Extinguishing Media	Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use extinguisher media appropriate for surrounding fire.
Special Protective Equipment for Firefighters:	Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.
Special Exposure Hazards	None identified.

6. Accidental Release Measures

Personal Precautions	Use of personal protective equipments is recommended as described in Section 8. Isolate hazard area and deny entry to unprotected personnel.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways.
Methods for containment and clean up	Small spills may be contained and cleaned-up with paper towels or absorbent pads. Absorb large spills with sand or vermiculite and place in a closed container for waste disposal. Avoid physical contact during removal.

7. Handling and Storage

Precautions for Safe Handling	Avoid contact with eyes, skin and clothing. Do not ingest. Wash hands thoroughly after use.
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Conditions for Safe Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure Controls/Personal Protection

Engineering Controls No Special controls needed.

Personal Protective Equipment

Eye Protection Wear chemical splash goggles and/or face shield when eye and face contact is possible due to splashing or spraying of material.

Skin Protection Use chemically resistant gloves and a lab coat with sleeves.

Respiratory Protection

Exceeding exposure limits is unlikely during normal usage. However, if irritating vapors are produced, respiratory protection is recommended. Attempt to reduce exposure levels to an acceptable range.

General Hygiene Measures

Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling and before eating or drinking.

9. Physical and Chemical Properties

Appearance Colorless~Slightly red

Odor None

pH (as supplied) 7.00 – 7.20

Melting point No data available

Boiling point No data available

Flash point No data available

Flammability No data available

Lower explosion limit No data available

Upper explosion limit No data available

Vapor pressure No data available

Vapor density No data available

Specific Gravity No data available

Solubility (in water) Soluble

Partition coefficient No data available

(n-octanol/water)

Auto-ignition temperature No data available

Decomposition Temperature No data available

10. Stability and Reactivity

Chemical Stability Stable under recommended storage conditions. (see IFU of individual products.)

Conditions to avoid Avoid buildup of sodium azide in copper or lead plumbing. Thorough flushing of plumbing with water is recommended.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.

11. Toxicological Information

Acute dose effects	No data available
Repeat dose effects	No data available
Skin irritation	No data available
Skin and respiratory sensitization	No data available
Eye irritation	No data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, potential, known, anticipated, or confirmed carcinogen by IARC, ACGIH, NTP or OSHA.
Mutagenicity	No data available
Reproductive effects	No data available
Developmental effects	No data available
Target organ effects	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated at product concentrations.

12. Ecological Information

Ecotoxicity	No data available
Persistence and degradability	No data available
Bioaccumulation/accumulation	No data available
Mobility in environmental media	No data available
Other hazardous effects	No data available

13. Disposal considerations

Product	Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any body of water. Contact a licensed professional waste disposal service for appropriate methods of disposal.
Contaminated packaging	Dispose of as unused product.

14. Transportation Information

Proper shipping name	Not applicable
Technical Name	Not applicable
Hazard class	Not applicable
Identification number	Not applicable
Packing group	Not applicable
DOT(US)	Not regulated
IMDG	Not regulated
IATA	Not regulated
TDG	Not regulated

15. Regulatory Information

JAPAN OHSL	Not regulated
JAPAN PRTR Law	Not regulated
JAPAN NITE Law	Not regulated
JAPAN PDSC Law	Not regulated
JAPAN Fire protection Law	Not regulated
Unites States (TSCA)	All ingredients are on the inventory or exempt from listing.

16. her Information

Sources and Suitability

The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. UMA shall not be held liable for any damage resulting from use, handling, or contact with the above product.

Safety Data Sheet

17. Product and Company Identification

Product(s):	MEASURE UA R-2
Manufacturer's name:	UMA Co.,Ltd.
Address:	2-19-6, Yokosuka, Matsudo. Chiba, 270-0031, Japan
Tel:	+81-47-710-4871
Fax:	+81-47-710-4872

18. Hazards Identification

Emergency Overview

This product has been classified as non-hazardous based on the physical and/or chemical nature and/or concentration of ingredients.

Product has little to no hazards for Emergency Responders if spilled and has no unusual hazard if in a fire.

Sodium azide (0.06%) is included as a preservative. Although it is not considered hazardous at this level, please note that accumulated sodium azide may react with lead or copper plumbing to form highly explosive metal azides. Though flushing of plumbing is recommended.

OSHA Hazards: Not Hazardous

While this material is not considered hazardous by the OSHA Hazard Communication Standard [29 CFR 1910.1200], the SDS contained valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

GHS Classification

Signal words, Symbol, Hazard & Precautionary Statements

Not Hazardous

Potential Health Effects

Skin Contact	May be harmful if exposed to skin. May cause skin irritation, itching, redness or inflammation.
Eye Contact	May be harmful if exposed to eyes. May cause eye irritation, watering eyes, stinging or burning sensation.
Inhalation	May be harmful if inhaled. May cause respiratory tract irritation, headache, dizziness, nausea or coughing.
Ingestion	May be harmful if swallowed. May cause irritation of gastrointestinal tract, nausea, or vomiting.

See Section 11: Toxicological Information for additional information.

Environmental effects None identified.
See Section 12: Ecological Information for additional information.

19. Composition/Information on Ingredients

<u>Chemical Name</u>	<u>Synonyms</u>	<u>%Composition</u>	<u>CAS Number</u>
Sodium azide	N/A	0.06%	26628-22-8

Note: It has been determined that the remaining ingredients of this products are not classified as hazardous according to the Japan National Institute of Technology and Evaluation.

20. First Aid Measures

General Advice	Avoid further exposure to product. Consult a physician.
In case of skin contact	Wash exposed area with soap and plenty of water. Remove any contamination clothing. Seek medical attention.
In case of eye contact	Wash eyes with plenty of water for at least 15 minutes. Have victim remove contact lenses. Be sure to wash under eyelids. Seek medical attention.
If inhaled	Remove victim to well-ventilated area. If victim is not breathing give artificial respiration. Seek medical attention.
If swallowed	If victim is conscious, rinse mouth with water. Do not give anything to an unconscious victim. Seek medical attention.

21. Fire Fighting Measures

Suitable Extinguishing Media	Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Use extinguisher media appropriate for surrounding fire.
Special Protective Equipment for Firefighters:	Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.
Special Exposure Hazards	None identified.

22. Accidental Release Measures

Personal Precautions	Use of personal protective equipments is recommended as described in Section 8. Isolate hazard area and deny entry to unprotected personnel.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways.
Methods for containment and clean up	Small spills may be contained and cleaned-up with paper towels or absorbent pads. Absorb large spills with sand or vermiculite and place in a closed container for waste disposal. Avoid physical contact during removal.

23. Handling and Storage

Precautions for Safe Handling

Avoid contact with eyes, skin and clothing. Do not ingest.
Wash hands thoroughly after use.

Conditions for Safe Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area.

24. Exposure Controls/Personal Protection

Permissible Exposure Limits

Component

Sodium Azide

Permissible Exposure Limit(s)

ACGIH, TLV: 0.29mg/m³. Ceiling

JSOH: No setting.

No Special controls needed.

Engineering Controls

Personal Protective Equipment

Eye Protection

Wear chemical splash goggles and/or face shield when eye and face contact is possible due to splashing or spraying of material.

Skin Protection

Use chemically resistant gloves and a lab coat with sleeves.

Respiratory Protection

Exceeding exposure limits is unlikely during normal usage. However, if irritating vapors are produced, respiratory protection is recommended. Attempt to reduce exposure levels to an acceptable range.

General Hygiene Measures

Avoid contact with eyes, skin and clothing. Wash hands thoroughly after handling and before eating or drinking.

25. Physical and Chemical Properties

Appearance Slightly yellow

Odor None

pH (as supplied) 6.60 – 6.90

Melting point No data available

Boiling point No data available

Flash point No data available

Flammability No data available

Lower explosion limit No data available

Upper explosion limit No data available

Vapor pressure No data available

Vapor density No data available

Specific Gravity No data available

Solubility (in water) Soluble

Partition coefficient No data available

(n-octanol/water)

Auto-ignition temperature No data available

Decomposition Temperature No data available

26. Stability and Reactivity

Chemical Stability	Stable under recommended storage conditions. (see IFU of individual products.)
Conditions to avoid	Avoid buildup of sodium azide in copper or lead plumbing. Thorough flushing of plumbing with water is recommended.
Materials to avoid	Contact of sodium azide with heavy metals may form explosive azides. Contact of sodium azide with acids may liberate toxic gas.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions: carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas.
Possibility of hazardous reactions	Contact of sodium azide with heavy metals may form explosive azides. Contact of sodium azide with acids may liberate toxic gas.

27. Toxicological Information

Acute dose effects	No data available
Repeat dose effects	No data available
Skin irritation	No data available
Skin and respiratory sensitization	No data available
Eye irritation	No data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, potential, known, anticipated, or confirmed carcinogen by IARC, ACGIH, NTP or OSHA.
Mutagenicity	No data available
Reproductive effects	No data available
Developmental effects	No data available
Target organ effects	No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated at product concentrations.

28. Ecological Information

Ecotoxicity	No data available
Persistence and degradability	No data available
Bioaccumulation/accumulation	No data available
Mobility in environmental media	No data available
Other hazardous effects	No data available

29. Disposal considerations

Product	Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any
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body or water. Contact a licensed professional waste disposal service for appropriate methods of disposal.

Contaminated packaging Dispose of as unused product.

30. Transportation Information

Proper shipping name	Not applicable
Technical Name	Not applicable
Hazard class	Not applicable
Identification number	Not applicable
Packing group	Not applicable
DOT(US)	Not regulated
IMDG	Not regulated
IATA	Not regulated
TDG	Not regulated

31. Regulatory Information

JAPAN OHSL	Not regulated
JAPAN PRTR Law	Not regulated
JAPAN NITE Law	Not regulated
JAPAN PDSC Law	Not regulated
JAPAN Fire protection Law	Not regulated
Unites States (TSCA)	All ingredients are on the inventory or exempt from listing.
SARA 313 components	Sodium azide: CAS 26628-22-8, Concentration 0.06%

32. Other Information

Sources and Suitability

The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. UMA shall not be held liable for any damage resulting from use, handling, or contact with the above product.